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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,620	11/28/2001	Takamasa Hayashi	216563US2	9269

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EXAMINER

EBRAHIMI DEHKORDY, SAEID

ART UNIT

PAPER NUMBER

2626

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/994,620	HAYASHI ET AL.	
	Examiner	Art Unit	
	Saeid Ebrahimi-dehKordy	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 22 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-8 and 12-14 is/are rejected.
- 7) ☒ Claim(s) 2-4 and 9-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues the lack of CPU's comparison of the operation specifications stored between the first and second storing means, and based on the comparison the operational state of the image forming device. Examiner Cites, Ito et al (U.S. patent 6,658,219) and points out the way the CPU would compare the measurement of the toner density between the apparatus memory and the cartridge memory to determine whether the image forming device is operating properly.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1, 5-8 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applegate et al (U.S. patent 5,995,774) in view of Ito et al (U.S. patent 6,658,219)

Regarding claim 1, 7-8 and 14 Applegate et al disclose: An image forming apparatus (Fig.1 item 10, column 8 lines 50-60) comprising: an apparatus body (note Fig.1 item 10) image forming means at least partly implemented by a replaceable part which is removably mounted to said apparatus body (note Fig.1 item 100, column 9 lines 63-67 and column 10 lines 1-4 also note column 5 lines 7-14) sensing means (note Fig.5 item 172 the gas gauge sensor, column 11 lines 30-37) for sensing a condition of use of the replaceable part that varies in accordance with use of said apparatus body (note Fig.5

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column 11 lines 30-53) first writable and readable non-volatile storing means built in said apparatus body (note Fig.5 item 152 and 162 the NVRAM, non volatile memories, column 11 lines 20-29) second writable and readable non-volatile storing means built in the replaceable part (note column 1 lines 6-16 and specifically lines 10-16, also note abstract lines 1-4, also note column 10 lines 29-38 and also column 30 lines 1-8) accessing means for accessing said first storing means and said second storing means via a shared data bus (note Fig.5 item 176 where the print engine which is connected to devices 162 and 152 "non-volatile memories communicates with the non-volatile memory 144 of the cartridge, column 11 lines 30-37) and control means for sensing at a time of image formation (Fig.14 and 5, item 172, column 26 lines 14-31) a variation of the condition of use of the replaceable part via said sensing means (note Fig.12,13 and 14, column 23-26 where the complete consumption of the toner used and the degree of variation is fully taught by Applegate) obtaining information representative of a condition after use from a sensed variation (note again Figs.12,13 and 14 where the condition after use and variation of it is shown in terms of consumption and assessed and actual use, columns 23-26) writing among said information, information relating to operation specifications of said apparatus body in said second storing means as well as in said first storing means (note column 10 lines 29-37 and also note Fig.8, column 20 lines 1-17). However Applegate et al does not clearly disclose: control means configured to perform a comparison of the operation specifications stored between the first and second storing means, and based on the comparison to determine whether the image forming means is in an operational state. On the other hand Ito et al disclose: control

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means (note Fig.19 item 110 the CPU) configured to perform a comparison of the operation specifications stored between the first (note Fig.19 item 117 the cartridge memory, column 22 lines 43-45) and second storing means (note Fig.19 item 111 the printer memory, column 22 lines 45-46) and based on the comparison to determine whether the image forming means is in an operational state (note column 22 lines 39-49 where the controller 110 compares between two memories to whether the cartridge is proper or improper for action). Therefore it would have been obvious to a person of ordinary skill in art at the time of the invention to modify Applegate et al's invention according to the teaching of Ito et al, where Ito et al in the same field of endeavor teach the way that the CPU is comparing the allowable range of the cartridge usage in order to determine the operability and impropriety of the cartridge stated on column 22 lines 46-49.

Regarding claim 5 and 12 Applegate et al disclose: In an IC (Integrated Circuit) chip (note column 9 lines 45-54 and specifically lines 56-57 where the integrated circuit is embedded in the RAM of the printer 10 which communicates with the engine controller) connected to a CPU (Central Processing Unit) (note column 11 lines 20-29 where the integrated circuit is connected which is part of the NVRAM is communicating with the engine controller160) which is in an apparatus body of an image forming apparatus (note Fig.5 items 162 the NVRAM with integrated circuit embedded and controller 160 are housed in the body of the apparatus10) when mounted to said apparatus body, comprising: writable and readable nonvolatile storing means accessible under a control of said CPU (note column 9 lines 46-61 where the integrated circuit is embedded to the

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NVRAM memory which interact with the controller 36 of Fig.1 and also note Fig.5 column 11 lines 20-37) an access to said nonvolatile storing means is made via a data bus shared by said nonvolatile storing means and writable and readable nonvolatile storing means built in said apparatus body (note Fig.5 and items 152,162 and the device 10 the printer apparatus which houses these items and also note column 9 lines 36-44 where the buses are provided as electronic pathways to make communication between the elements of printer 10) and said storing means configured to store among information representative of a condition of operation of said apparatus body that varies in accordance with an operation of said apparatus body information relating to operation specifications of said apparatus body is mounted to said apparatus body (note column 9 lines 46-55 and column 11 lines 20-37 and also column). Said CPU configured to perform a comparison of the operation specification stored between the storing means built in said apparatus body and the storing means of said IC chip, and based on the comparison to determine whether the image forming apparatus is in an operational state. However Applegate does not quite disclose: CPU (note Fig.19 item 110 the CPU) configured to perform a comparison of the operation specification stored between the storing means built in said apparatus body (note Fig.19 item 111 the printer memory, column 22 lines 45-46) and the storing means of said IC chip (note Fig.19 item 111 the printer memory, column 22 lines 45-46) and based on the comparison to determine whether the image forming apparatus is in an operational state (note column 22 lines 39-49 where the controller 110 compares between two memories to whether the cartridge is proper or improper for action). Therefore it would have been obvious to a

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person of ordinary skill in art at the time of the invention to modify Applegate et al's invention according to the teaching of Ito et al, where Ito et al in the same filed of endeavor teach the way the that the CPU is comparing the allowable range of the cartridge usage in order to determine the operability of the cartridge.

Regarding claim 6 and 13 Applegate et al disclose: In a replaceable part for an image forming apparatus including image forming means that is at least partly removable from an apparatus body of said image forming apparatus (note Fig.1 item 100, column 9 lines 63-67 and column 10 lines 1-4 also note column 5 lines 7-14) said replaceable part comprising: an IC chip (note Fig.6 item 144 which has embedded integrated circuit, column 12 lines 52-67 and also column 11 lines 20-37 where integrated circuit is embedded in the NVRAM of the memory 144 of the cartridge) connected to a CPU (note Fig.5 item 176 which connects the engine controller of the printer 10 to the NVRAM and embedded integrated circuit of the cartridge, column 10 lines 63-67 and column 11 lines 1-37) which is built in said apparatus body (note Fig.5 item 10 the printer and item 160 the controller or Cup of the printer 10) when mounted to said apparatus body and including writable and readable nonvolatile storing means accessible under a control of said CPU (note Fig.5 items 152 and 160 which are respectively NVRAM and the controller communicating through the buses, column 9 lines 36-44) an access to said nonvolatile storing means is made via a data bus shared by said nonvolatile storing means and writable and readable nonvolatile storing means built in said apparatus body (note Fig.5 and items 152,162 and the device 10 the printer apparatus which houses these items and also note column 9 lines 36-44 where the

buses are provided as electronic pathways to make communication between the elements of printer 10) and said storing means configured to store among information representative of a condition of operation of said apparatus body that varies in accordance with an operation of said apparatus body, information relating to operation specifications of said apparatus body when said IC chip is mounted to said apparatus body (note column 9 lines 46-55 and column 11 lines 20-37 and also column). However Applegate does not quite disclose: control means configured to perform a comparison of the operation specifications stored between the storing means built in said apparatus body and the storing means of said IC chip, and based on the comparison to determine whether the image forming means is in an operational state. On the other hand Ito et al disclose: control means (note Fig.19 item 110 the CPU) configured to perform a comparison of the operation specifications stored between the storing means built in said apparatus body (note Fig.19 item 111 the printer memory, column 22 lines 45-46) and the storing means of said IC chip (note Fig.19 item 111 the printer memory, column 22 lines 45-46) and based on the comparison to determine whether the image forming means is in an operational state (note column 22 lines 39-49 where the controller 110 compares between two memories to whether the cartridge is proper or improper for action). Therefore it would have been obvious to a person of ordinary skill in art at the time of the invention to modify Applegate et al's invention according to the teaching of Ito et al, where Ito et al in the same filed of endeavor teach the way the that the CPU is comparing the allowable range of the cartridge usage in order to determine the operability of the cartridge.

Allowable Subject Matter

4. Claims 2-4 and 9-11 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, the operation specifications in accordance with the information stored in said first storing means and representative of a condition of the last use causes said apparatus body to start operating under image forming conditions based on said operation specifications, and again determines, if the condition of the last use stored in said first storing means and the condition of the last use stored in said second storing means do not compare equal, whether or not to again set image forming conditions in accordance with new operation specifications based on said condition stored in said second storing means would be novel.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Saeid Ebrahimi-Dehkordy* whose telephone number is (571) 272-7462.

The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 5:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams, can be reached at (571) 272-7471.

Any response to this action should be mailed to:

Assistant Commissioner for Patents
Washington, D.C. 20231

Or faxed to:

(571) 273-8300, (for ***formal*** communications; please mark
"EXPEDITED PROCEDURE")

Or:

(703) 306-5406 (for ***informal*** or ***draft*** communications, please label
"PROPOSED" or "DRAFT")

Hand delivered responses should be brought to Knox building on 501 Dulany Street, Alexandria, VA.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 305-4750.

Saeid Ebrahimi-Dehkordy

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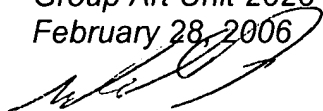
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Patent Examiner

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February 28, 2006

A handwritten signature in black ink, appearing to be 'M. Wallerson', written over the printed text.A handwritten signature in black ink, appearing to be 'Mark Wallerson', written over the printed text.

MARK WALLERSON
PRIMARY EXAMINER